Product Release Note
Oracle FLEXCUBE Corporate Lending
Release 12.1.0.0.0
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FINANCIAL SERVICES

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1. Release Notes

1.1 Background

Oracle Financial Services Software Limited has developed Oracle FLEXCUBE Corporate Lending Solution to service a big corporate customer, for a huge value transaction in the form of loan.

Oracle FLEXCUBE Bilateral Loans

Empowers financial institutions   of varied sizes to offer and manage complex commercial loan products catering to large corporate and SMEs. Product manufacturing enables the bank to create innovative products, cuts down time to market and respond to competition efficiently and effectively. Rule driven delinquency handling provides better control over stressed loan assets enabling timely action.

Oracle FLEXCUBE Syndicated Loans

Empowers large multinational banks & Financial Institutions to structure complex syndicated loans under three tier architecture. Robust multi currency, multi borrower, multi region participation support makes it easier for arrangers to structure ultra flexible deals seamlessly. High volume processing is supported to cater to deals with thousands of participants.

Oracle FLEXCUBE Secondary Loans Trading

SLT Module tracks the trading of syndicated loans in the secondary market. It allows the booking and settlement of trades under Lead and Participated facilities. It supports Par and distressed loan trading. It also supports the Assignment and Participation (Silent) type of trades

1.2 Purpose

The purpose of this Release Note is to highlight the enhancements in Oracle FLEXCUBE Corporate Lending 12.1.0.0.0.

1.3 Abbreviations

Abbreviation	Description
UDE	User defined Elements
BIP	Business Intelligence Publisher
EOD	End of Day
FATCA	Foreign Account Tax Compliance Act
FCY	Foreign Currency
IE	Internet Explorer
LDAP	Lightweight Directory Access Protocol

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Abbreviation	Description
OD	Over Draft
ODT	Oracle Development Tool
SSO	Single Sign On
UDE	User defined Elements
UI	User Interface
DCF	Delayed Compensation Fee
SLT	Secondary Loans Trading
PNL	Profit and Loss
WAC	Weighted Average Cost
LIFO	Last In First Out
FIFO	First In First Out
CUSIP	Unique identifier for the loan in the market
STP	Straight Through Processing
WHT	With Holding Tax

For module code and description details, please refer Annexure C.

1.4 Release Highlights

Oracle FLEXCUBE Corporate Lending 12.1.0.0.0 is a consolidated release of enhancements done for corporate lending modules. Oracle FLEXCUBE corporate lending suite includes bilateral loans, syndicated loans and loans trading. The module houses an inbuilt Oracle FLEXCUBE core module to enable functioning of corporate lending suite.

Oracle FLEXCUBE Corporate lending suite can be integrated with another instance of OracleFLEXCUBE or any other Core Banking application to cater to replication of Core data requirements.

1.5 Features of Bilateral Loans Module

1.5.1 Billing Notice

System capability enhanced to define billing notice days for each component (Principal, Interest, and Fee) at product level. This will be defaulted at loan or commitment contract level. Ability to modify or suppress billing notice for a component is provided. Facility to capture whether the component should be liquidated automatically or manually for interim and maturity schedule is provided.

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New screen is provided to generate and re-generate billing notice for loans. Also facility to store the billing notice and the information in supported.

For contracts that are past maturity date but not paid, facility to generate billing notice on every anniversary after maturity is provided.

Message processing is enhanced to send bills to multiple client addresses.

Facility to liquidate least of billed and schedule amount for a component is introduced based on preference at contract level.

1.5.2   Slab / Tier based Fee and waiver

Ability to define Slab / Tier based Fee based on Utilized or Unutilized balance for commitments is introduced. Facility to exclude certain loans (mostly LCs) while computing unutilized commitment fees. Facility to waiver commitment fees either partially or in full during liquidation of fees is provided.

For loans Slab / Tier based spread definition is possible based on principal outstanding balance of loan. Spread based on Slab / Tier should be derived automatically based on loan outstanding balance.

1.5.3   Auto Step-up / Step down of Commitment

Facility to define step up or step down schedules as part of booking a commitment contract is provided. System will trigger VAMI to increase or decrease the principal for step up / step down as part of batch process.

1.5.4   Schedule block on commitment

Facility to block utilization of a commitment between a pre-defined start and end dates is introduced. During this period no utilization of commitment through new loan / principal increase of existing loan / loan renewal will be allowed. However modification of dates for this scheduled blockage is possible through contract amendment.

Also facility to block the limits on commitment contract creation is introduced. Actual utilization of limits will happen when a loan is created using the commitment.

1.5.5   FAS91 Accrual Changes

Ability to accrue fees based on discount accrual method using the fee module is introduced. User can link multiple fee components in a product to for discount accrual.

1.5.6   Loan interest accrual based on principal outstanding

Facility to compute interest on principal outstanding of a loan is introduced. Facility to charge a fixed rate until maturity and a floating rate based on principal outstanding after maturity is introduced.

1.5.7   Composite rate for loans

Facility to setup system derived composite rate codes is provided. The resultant composite rate is stored as per the derivation logic. Possibility to setup auto rate revision for loans with composite rate codes is enabled.

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1.5.8 Re-price of floating rate to fixed and vice versa

Facility to support re-pricing of fixed rate to floating and floating to fixed rate contracts is enabled. Facility to split one contract into multiple or consolidate multiple contracts into one contract is provided. The principal outstanding and utilization of commitment remains unaffected as part of re-pricing process. No settlement to customer is done as part of re-pricing process.

In case of re-price and prepayment existing payment schedules will be retained and option provided to mark the payment schedules as settled to the extent of prepaid principal based on FIFO / LIFO basis.

1.5.9 Demand Loans

System enhancement to support setup of rate revision schedules, intermediate interest payment schedules for demand loans is provided. Possible to setup fees and perform interest capitalization for demand loans is enabled.

Functionality to re-price demand loans to term loans and vice versa is provided.

1.5.10 Manual Rate Revision

Facility to manually enter / modify the rate before confirmation is enabled for floating periodic loans. The rate fixing can be performed during contract booking, re-pricing and after contract booking (using the manual rate revision screen).

1.5.11 Interest Rate ype and Maturity type change for loans

For interest components facility to change rate type from Fixed to Floating Auto or Floating periodic Auto/Manual is enabled. Similarly, it is possible to change rate type to Fixed from any floating variant.

Change of maturity type from Call to Fixed and vice versa is allowed.

1.5.12 Intra Day loans

Possibility to setup intraday loans is enabled. System will compute one day interest for such loans. The value date and maturity date is defaulted to the loan value date. Only manual liquidation is possible on such loans.

1.5.13 Fed Rate loans

Special type of loans offered to prime customer on Fed rate + spread basis. On a daily basis the borrower can repay the loan amount in full or partially. Also he can draw additional amount under this loan.

Interest on such loans is collected monthly and the contract status should be active even though there is no outstanding for such loans. Only when the user provides a fixed maturity date such loans will be liquidated.

1.5.14 Overpayment and refund of fees and interest

System enhanced to accept payment of interest and fees more than the due amount as on the payment date. The excess interest or fee will be adjusted against subsequent schedules. It should be possible to refund the excess interest or fee collected to customer before settlement of future schedule where the excess amount is adjusted.

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Such excess amount paid by the customer or refunds should be reflected in the billing notice sent to customer.

Overpayment is allowed for installment Bearing loans with Fixed / Call maturity type.

1.5.15 Value dated amendments, payments and payment reversals

System restrictions relaxed to accept payments and perform value dated amendments on the value date of loan contracts.

Flexibility to reverse payments of interest, principal, fees and charges of loans and commitments for any intermediate schedule or bullet schedule is provided. Payments arising out rollover / reprice cannot be reversed. Auto liquidation of bearing capitalized loans cannot be reversed.

1.5.16 Back Valued Activities

Interest computation and schedule population logic has been modified to enable the following back valued activities

- Perform rate changes beyond liquidated schedules
- Make back dated payments beyond last amendment date.
- Make payment beyond last payment date.
- Amend schedules which are due in the past but not liquidated.
- Apply spread change beyond the liquidated schedules
- Apply rate revision for liquidated contracts/liquidated schedules.
- Perform VAMI beyond the rate revision or rate fixing date
- Payment beyond the rate revision or rate fixing date
- Amendment beyond payment date
- Change the rate for a Floating Periodic Manual contract, for the period which is already fixed.
- Bring down the reset end date for Floating Periodic Manual Contracts, for the period which is already fixed.
- Change the reset value date for Floating Periodic Manual contracts, when the rate has to be fixed for interim gap period created due to reset end date being brought down.
- Recomputation of liquidated fee schedules, for derived type of Fee.

1.5.17 Interest capitalization on Renewal

System flexibility to capitalize unpaid interest onto the principal of rolled over child contract.

1.5.18 Sub-limits

System flexibility to define sub limits for each customer, currency, product combination at commitment level. In the absence of a sublimit wild card 'ALL' is made available.

Also it is possible to capture and view FM Ref No and Facility ID for each customer, currency and product combination.

Facility to keep track of LC sublimit for loans separately.

1.5.19 Non-performing loans and commitments

System restrictions relaxed to enable the user to book loans and commitment in non-performing status. The user defined status of commitment is propagated to all linked loan contracts that are outstanding. Facility to renew loan contracts and generate child contracts in same non-performing status.

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1.5.20 Installment loans

Flexibility to have user input installment amount for loan. Any difference should be adjusted against the bullet schedule. For rate revision flexibility to change the installment amount or adjust against the bullet schedule is provided.

 For installment loan where interest computation is based on principal outstanding, re-amortization will be done on payment of any overdue schedule.

1.5.21 Amortization of fees

Flexibility to enter exchange rate where fee currency is different from settlement currency. The facility to enter exchange rate is provided as part of contract input, fee liquidation and fee amendment.

Facility to transfer amortized fees to child contract as part of re-price.

Facility to transfer unamortized fees or recognize it as income as part of re-pricing / rollover.

1.5.22 Pool funding facility

Facility to link multiple commitment contracts to single pool / master funding. Facility to maintain a pool and master funding reference number for commitment contracts is provided. As part of the funding facility capture of funding currency, funding amount, revolving funding and funding type (pool /master) is captured. This is linked at the time of booking commitment contracts.

1.5.23 Ability to generate 1098 statement

Facility to generate 1098 IRS mortgage statement every year (US regulatory requirement). Product level facility to define real estate products eligible for 1098 statement. Flexibility for ADMIN to override the interest paid amount and generate the interest statement.

Facility to maintain 1098 format in FLEXCUBE UI and generation of ASCII file for 1098 statement is provided.

1.5.24 Watchlist and disclosure service for loans

Facility provided to classify a customer as 'watchlist' and enforce capture of override remarks and authorisation of every activity of such customer.

System enhanced to capture a schedule of all reporting requirements of a loan. Track the reporting needs in a ticker and record when each reporting requirement has been received and date on which it is met. Also facility to setup notes for any follow up action that might be required.

1.6 Features of Loan Syndication Module

1.6.1 Agency Fees

System capability enhanced to automate collection of agency fees in Advance / Arrears. Automatic accrual of agency fees and liquidation is possible. Provision to compute the Facility fee on the total commitment amount considering the revolving / non-revolving parameter is provided.

1.6.2 Diary Functionality

System support for diary functionality introduced. As part of loan contract diary events and messages can be linked. Messages can be generated to a user or group or users for internal events and to customer for external events.

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1.6.3   <u>Forward Processing</u>

System capability enhanced to process certain events (Initiation, Rollover, Schedule liquidation, Fee liquidation) 'N' days in advance. However the messages will be put on hold until spot date or value date. The payment messages needs to be released manually by the user on the actual event date. Contracts where events are forward processed will be available for view in a separate browser.

1.6.4   <u>Netting Payments</u>

Flexibility to net across drawdown of a tranche is introduced. When a drawdown matures and another drawdown is effective from the maturity date, then only the net amount will be paid by the borrower.

1.6.5   <u>Participant Transfer</u>

System capability enhanced to perform participant transfer by entering amount or asset ratio. Facility to collect or waive fees for the transfer operation is provided. Automated generation of billing notice for participant transfer and facility to suppress the same is provided. System capability enhanced to process more than 300 participants in participant transfer screen.

Facility to support back dated participant transfer is enabled in the system. Facility to generate messages to participants indicating over or under payments and advising participants to remit or receive money. Also facility to perform future dated participant transfer is provided.

System capability enhanced to cater to One to Many and Many to Many participant transfers.

1.6.6   <u>Billing Notice</u>

Facility to generate billing notice 'N' days in advance before the due date of interest/fees to Borrower and Participants is provided. Generation of billing notice for fees in advance is also enabled.

Facility to review, amend and cancel all notices generated as part of batch or online process is provided.

1.6.7   <u>Fees (Utilized, Unutilized, Margin)</u>

System capability enhanced to compute utilized fees based on utilized amount tranche amount. The fees can be slab /tier based on utilized tranche amount.

Unutilized fees is computed based on unutilized tranche amount.

Margin is based on outstanding tranche amount. Margin revision schedules can be defined with effective date in the past i.e., if maintenance is created with past effective dates, then margin revision on Drawdowns should happen.

Support of the above fees extended to revolving and Non-Revolving tranches.

1.6.8   <u>Back valued interest</u>

System restriction relaxed to allow rate change prior to interest liquidation date. Interest is recalculated for the paid scheduled and payable / receivable is tracked for the difference amount.

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System generates notices to borrowers and participants on rate revision and margin revision events giving details of amount due, amount received and payable or receivable amount. Also system facilitates collection of tax on the payable / receivable amount

Provision to liquidate the payable / receivable amount created at any time during the contract life cycle without affecting the contract life cycle is provided.

1.6.9   Swing Lines

In case of any delay in disbursal of drawdown to the borrower, one or multiple participants can extend an adhoc line (swingline) to the borrower for his needs. Once the actual drawdown is when all participants and their funds are available. When Swing line is use system facility to include / exclude swing line drawdown for computation of unutilized fees for the swing line participants.

1.6.10   Cascade participation and non-pro rate drawdowns

System facility to cascade the participation ratio to drawdowns from the tranche is provided. However when a new non-prorata drawdown it is possible to define new participating ratio different from the original ratio defined at tranche level. In such cases, the cascading will be disabled at tranche level.

1.6.11   Back valued activities

System restrictions relaxed to perform back valued initiation, back dated VAMI, and back dated liquidation beyond the last trade (PRAM) of drawdowns belonging to revolving or non-revolving tranches.

System restriction relaxed to allow definition of back value dated interest and fee schedules.

1.6.12   Prime Loans

Prime loans have principal repayments at maturity. However interest can be collected periodically or at maturity or during prepayment of principal. System capability enhanced to handle prime loans and support future dated VAMI (principal increase), future dated payment and back dated interest rate changes prior to a pre-payment date.

1.6.13   Re-pricing

System capability enhanced to support re-pricing of LIBOR contracts to Prime and vice versa at maturity for drawdowns. Facility to suppress messages on rollover to borrowers and send for participants and vice versa.

1.6.14   Floor and Ceiling

User can specify Floor and ceil rate. The interest and margin components rate should be within the floor and ceil set at the contract level. System capability enhanced to support Floor and Ceil for

Agency contracts
- For All-in rate, Margin and Base rate for drawdowns propagated from tranche level.
- Only for Base rate based on preference at tranche contract level.

Loans
- For All-in rate for commitments.
- Propagated to loans under commitments

1.6.15 Fees Processing

System capability enhanced to collect adhoc fees and distribute to some or all participants on non pro-rata basis. Also system restriction relaxed to have the start date of fee schedule as the fee association date.

For prepayment of drawdown each participant will have their own fees. Facility provided to capture breakage fee for each participant of the drawdown. The total is collected from the borrower and distributed to the participants. Also system facility provided to liquidate a single fee component only even though there may be other fee components due.

System support provided for

- Origination fees, prepayment fee, non-service fee for bilateral loans
- Extension fees, utilized and unutilized fee for bilateral commitments
- Extension fees, utilized and unutilized fee facility fee for LS Tranche contracts

1.6.16 Grace Period and Late Payment Charges

System facility to allow a grace period for payment of interest by the borrower. Penal interest will be charged if not paid within the grace period.

Late payment charges is a onetime penalty that will be applied when the borrower does not make a payment within the grace period. This can be a flat amount or a percentage of total outstanding schedule amount.

1.6.17 Sighting Funds

System capability enhanced to block release of payment messages during authorization for events where funds are disbursed to borrower. Only when the funds are received from the corresponding participants are received the payment messages can be released.

Also depending on the obligator risk rating, system facilitates fronting of funds and receive compensation for the fronted amount. If the obligator risk indicates prior approval is required before fronting, then fronting can be done only after approval from the participant.

Facility for the user to default the previous fronting preferences or create a separate child contract when rollover / reprice is performed with increased principal.

System flexibility enhanced to allow assignment of sighting funds enabled participants even though unfunded future drawdown exists.

1.6.18 FPML Notices

System capability enhanced to generate the following FPML messages to participants

- Drawdown notice
- Rate reset notice
- Interest payment notice
- Scheduled principal repayment notice
- Unscheduled mandatory & voluntary repayment notice
- On-Going Fee payment notice
- One-off fee payment notice
- Rollover notice
- Split rollover notice
- Consolidated rollover notice

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- LC issuance notice
- LC Balance notice
- LC Amendment notice
- LC Fee notice
- LC Termination notice
- Pricing change notice

1.6.19 STP Processing

System capability enhanced to automatically create commitment and loans contract in LD module for Tranche and drawdown created in LS module for self-participants. STP browser is provided where the user can monitor the STP failures and initiate corrective action. Browser capability enhanced to unlock and mark records as processed.

Facility to identify type of self participation Lead / participant in a syndication deal is provided

1.6.20 Tax Requirements

System support to configure WHT on Fees and Interest distributed to participants.

System flexibility to forward one / Many / All of the tax withholdings of an participant to treasury to be forwarded to IRS. Facility to inspect and inquire previous tax withholdings.

System flexibility to waive WHT based on domicile of participant captured as part of customer information.

1.6.21 FATCA Enhancements

System enhancements to store additional information at customer level to facilitate year end IRS filing process. Also the parameters captured at customer level is used for computation of WithHoldingTax (WHT). When FATCA compliant flag is modified at customer level, batch process triggers Tax recalculation.

1.7 Features of Secondary Loans Trading Module

1.7.1 Different settlement days for Par and Distress loans

Specify the number of days after the trade, within which settlement should happen.

1.7.2 Track both settled and unsettled positions

Positions will be maintained for each CUSIP for a combination of Desk, Branch Code, and Expense Code & Swap ID/Settlement party of silent participation. Position will be updated on booking of the trade. Every Buy deal will result in an Open position which will be reduced with a subsequent sell of the CUSIP for the same Desk, Branch Code, and Expense Code & Swap ID/Settlement party of silent participation. Since, it is possible to have a Short position before Settlement date; positions can be positive or negative. Any short sell will result in a negative position. However, there should not be any short sells positions during the trade settlements In the event of any amendment to the trade amount (for example due to commitment reduction), the position will be recomputed.

1.7.3 Funding Memo Generation

Funding Memo is a type of Advice which is sent to the Trade counterparty. The Funding Memo contains all the details related to the deal like Counterparty, Agency Contract details, Trade Date, Global commitment amount, Drawdown Details, Fee Details, Settlement Accounts, etc.

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Various tags will be provided for population of details required in the Advice. The values for these tags will be picked up from the SLT contract, and Settlement Instructions. A new screen shown below will be provided to facilitate the funding memo generation and trade settlement or both. User will have option to specify if funding memo advice generation is required.

1.7.4 Trade Settlement - Current / Future / Past dated

If the actual settlement date is less than or equal to the system date, funding memo generation, payment message generation and trade settlement will happen together. If the actual settlement date is a future date, then funding memo and payment messages are generated in advance and trade settlement happens as part of the BOD batch process on actual settlement date. Payment message can be generated either during trade settlement authorization or during the EOD batch process, depending on the number of settlement days maintained for the combination of branch and currency.

1.7.5 Reversal of settlement

Reversal of settlement (RSTL) will be allowed. Any fee liquidated as part of settlement will also be reversed during trade settlement reversal.

1.7.6 Agency confirmation for trade settlement

Agency confirmation is applicable only for trades where bank is the lead agent. The trade settlement details for all trades that have been saved in the Trade settlement or Ticket settlement screen get displayed in the 'Agency Confirmation' screen. The agency needs to confirm or reject each trade that appears in this screen

1.7.7 Ability to handle multiple fees

Different types of fees are involved in the trading of a syndicated loan. The following are the various Types of fees involved in trading:

- Assignment fee
- Amendment fee
- Line/Accommodation fee
- Delayed compensation fee
- Break funding fee
- Waiver Fee
- Benefit of commitment reduction fee
- Upfront fee

The following two adhoc fee components are also involved in the trading process:

- Buyer to seller fee
- Seller to Buyer fee

1.7.8 Trade Capture

- Trade details can be manually entered in SLT module
- Trade details can be uploaded from the external system, Loans QT
- Trade deal can originate from the LS module
- New or Amendment of existing trade
- Reversal of Trade (both settled and unsettled)
- Route all trade of own portfolio through an internal sell to trading desk

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1.7.9   PNL Tracking

System capability to compute Realized PNL for trades using WAC/LIFO/FIFO methods. MTM revaluation is performed for Unrealized PNL.

1.7.10   Reserve calculation for unsold inventories

Inventory or transactions that have not been sold for a period greater than 90 days since trade date attract reserve calculation. Reserve calculation will be displayed in a secondary FLEXCUBE window in an on-demand basis and posted to the GL only at month end i.e., on the last day of the month

1.7.11   Handle Silent participation and elevation of silent participants

Silent Participation contracts would be captured as Normal Buy/Sell contracts in the SLT module. Every deal in FLEXCUBE will be input either as Assignment or Participation.

During elevation the silent participant becomes a direct participant with the agency

1.7.12   Computation of DCF Cost of Carry with Rule 25

DCF computation in SLT module considers the rule of 25 factor based on the balances on the expected settlement date and the actual settlement date and applies the same rule for the entire delayed period. For distress trades, the Rule-25 factor will be computed starting from the Expected settlement date (T+20) till the actual settlement date

1.7.13   SLT Browser

An online browser screen is available to view the status of the LQT files, message and manual upload facility.

1.7.14   STP of Drawdowns for Trades captures in SLT

A new screen is available to process LT LS STP for net position for the combination of CUSIP and position identifier for the trades settled in combined ticket settlement screen

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2. Components of the Software

2.1 Documents accompanying the Software

The various documents accompanying the software are as follows:

- Release Note
- User Manuals and Installation manuals - These can be accessed from the link

http://docs.oracle.com/cd/E74823_01/homepage.htm

2.2 Software Components

Software Components of Oracle FLEXCUBE Corporate Lending 12.1.0.0.0 that form part of this release are as follows:

- Host
  - Stored Procedures (Packages, Functions, Procedures, Triggers, Views)
- UI Application Server
  - Oracle Forms (fmb,fmx,pll,plx,mmb,mmx,icons)
- Installation utilities
  - Script based installation for compiling forms
  - Configuration changes
  - Oracle FLEXCUBE Corporate Lending Installation documents
- Online Help Files

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3. Annexure – A: Environment Details

Component	Deployment option	Machine	Operating System	Software	Version
Oracle FLEXCUBE Corporate Lending	UI-Host and centralized	Application server	Oracle Enterprise Linux Server 6.6(64 Bit)	Oracle WebLogic Server (JDK 1.7 Update 80)	10.3.6
				Java HotSpot(TM) JDK (with WebLogic Application Server)	JDK 1.7 Update 80
				Oracle Forms	11.1.2.2.0
		Database Server		Oracle 12c RDBMS Enterprise Edition	12.1.0.2.0
		Client Machines	Windows 7	Internet Explorer	11.0

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4. Annexure – C: Module Code and Description

Module Code	Module Description
CO (Core)	Oracle FLEXCUBE Core
LD	Loans and Deposits
LS	Loan Syndication
LT/SLT	Loan Trading/Secondary Loan Trading
FT	Funds Transfer

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